



400 Main Street
East Hartford, Connecticut 06108

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Manufacturing Division

January 10, 1986

HAZARDOUS MATERIALS
MANAGEMENT UNIT

MAR 10 1986

Mr. George Dews
Senior Sanitary Engineering
Hazardous Waste Management Section
Department of Environmental Protection
165 Capitol Avenue
Hartford, CT 06108

RCRA RECORDS CENTER
FACILITY Pratt & Whitney Main St
I.D. NO. CTD990672081
FILE LOC. R-1B
OTHER RDMS #2830

REFERENCE: Closure Plan-Hazardous Waste Incinerator
Pratt and Whitney, Main Street, East Hartford
EPA ID#CTD990672081

Dear Mr. Dews:

Enclosed please find the report "Closure Plan for the Burn-Zol Hazardous Waste Incinerator." As Pratt and Whitney would like to proceed with proper closure of the unit as soon as approval of the plan is received, we would greatly appreciate your prompt review.

Should you have any questions concerning the closure plan or require any additional information, please contact Kevin Vidmar at 565-2016.

Thank you for your courtesy, cooperation, and prompt attention to this matter.

Sincerely,

John G. Whitehead
Plant Manager

JGW/KPV/tc

Enclosure

**CLOSURE PLAN
FOR THE BURN-ZOL
HAZARDOUS WASTE INCINERATOR**

**RESOURCE CONSERVATION AND RECOVERY ACT
CONCENTRATED WASTE TREATMENT PLANT**

PRATT & WHITNEY

400 MAIN STREET FACILITY

EAST HARTFORD, CONNECTICUT

EPA ID # CT D 990672081

JANUARY 6, 1986

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HAZARDOUS WASTE INCINERATOR CLOSURE PLAN

1.0 INTRODUCTION

This closure plan is for the hazardous waste incinerator located at the Concentrated Waste Treatment Plant (CWTP) of the Pratt & Whitney (P&W) East Hartford Main Street Facility, EPA ID No. CT D 990672081. Closure of this unit will be conducted in accordance with all applicable RCRA regulations, and will:

- 1) Minimize the need for further maintenance, and;
- 2) Control, minimize or eliminate to the extent necessary, the post closure release of hazardous wastes to groundwater, surface water or the atmosphere.

In subsequent sections, this closure plan provides a description of general methods to be applied and precautions to be taken in closing the incinerator. A trackable closure schedule and the specific closure methods will be described in detail, as will the closure cost estimate.

The following general information applies to this plan:

1) Personal Health and Safety- The decontamination crew will consist of a minimum of two individuals at all times who will be adequately clothed, including self-contained breathing apparatus, if required, and coveralls. Supervision of the decontamination process will include the individual(s) responsible for operation of the Concentrated Waste Treatment Plant.

2) Sudden or Non-Sudden release, or Fire Hazard- The decontamination process will be considered as an activity presenting a moderate risk potential for release of hazardous waste or fire/explosion hazard. As such, the appropriate mechanisms of the contingency plan will be readily available for activation.

2.0 FACILITY DESCRIPTION

The CWTP is the Hazardous waste facility at the P&W East Hartford Main Street plant. Hazardous wastes are brought to the CWTP from areas within this manufacturing facility and from other P&W plants located within Connecticut.

As specified on the RCRA Part A application, the CWTP consists of a hazardous waste barrel storage, transporter storage, tank storage, and a liquid injection hazardous waste incinerator.

The incinerator has never met performance criteria, and outside of the allowed test burns to determine operating parameters and compliance with regulatory standards, this unit has never been used to treat any hazardous wastes. Only the incinerator portion of the CWTP will undergo closure as described in this plan.

3.0 INCINERATOR DESCRIPTION

A diagram of the incinerator and associated equipment is presented in appendix A. Below is a narrative description of this equipment.

The incinerator located at the CWTP is a Burn-Zol Model 272 liquid injection waste incinerator. Physically the incinerator is cylindrical in shape, being 6'6" outside diameter by 21'3" high with 3" of forced air cooling between the outer stainless steel shell and the steel inner shell. There is then a minimum of 6" of high temperature acid resistant refractory lining. The primary and secondary combustion chambers and the tertiary holding chamber are 5' in diameter or 19.5 square feet in area.

The primary chamber has two (2) dual fuel Maxon 3" Multifire II burners rated at 1.5 Million British Thermal Units per hour (MM BTU/hr) each. These burners use either natural gas or No. 2 fuel oil. There are also three (3) nozzles in this chamber for injection of wastes. Each nozzle is air cooled and is accessible from the outside for interchanging nozzles for proper atomization of waste charges.

The secondary chamber has one (1) dual fuel Maxon 4" Multifire II burner rated at 2.5 MM BTU/hour. All burners have Protectifier flame safeties on the pilots and 20:1 throttleable and proportional control.

Combustion products from the incinerator are ducted to an Eclipse Model 3 HRW waste heat boiler which generates hot water. A pitot tube with indicator is in the duct before this blower to indicate combustion gas velocity. Generated hot water is cooled in a B&G tube and shell heat exchanger with the cooling water being dumped to a NPDES permitted cooling water discharge. This water was eventually intended for heating the building.

From the boiler combustion products are then ducted to a Hydronics Model VS 72 venturi scrubber and a Hydronics Model PTS 72 packed tower counterflow scrubber operating with caustic wash. Both scrubbers are fabricated of stainless steel and the tower contains polypropylene Tellerette packing. To protect the packing there is a thermocouple and temperature switch in the inlet duct that will shut down the incinerator before the packing has any thermal damage. There is also a liquid manometer across the venturi to indicate pressure drop. The pressure drop is used as an indication of air velocity and venturi scrubber efficiency. The venturi scrubber is designed for particulate removal while the packed tower has high gas/liquid area for removing fine

particulate and neutralizing acids in the waste gas stream. At the exit of the scrubbers is a demister system to remove liquid entrainment in the waste gas stream. The caustic wash is contained in a 400 gallon tank and circulated through the scrubbers at 65 gallons per minute (GPM). The pH is controlled at 7.0-8.5 by the addition of liquid sodium hydroxide.

The air from the demisters is ducted through a damper system to one of two prime air movers. These are New York Blower Series 45 G1 fans, size 264 with 60 horse-power (HP) motors rated at 4000 cubic feet per minute (cfm) at 37" water. One blower is the prime mover with the second used as a back-up. The exhaust from the blower is directed out the exhaust stack on top of the building.

4.0 PERMITTING HISTORY

On September 19, 1979 P&W submitted an application to the Connecticut Department of Environmental Protection (DEP) Air Compliance unit to construct a liquid injection hazardous waste incinerator. The permit to construct was granted on August 9, 1980, and construction commenced immediately. The construction was essentially complete in April 1981. Since that time test burns were conducted at various times to define the performance of the unit compared to the regulatory standards. As described in the section below, these performance tests indicated excessive particulate emissions, and the required Construction and Operation permits from the DEP Air Compliance Unit expired while these problems were investigated. Renewals of these permits have been requested and received from the DEP on numerous occasions, as each performance test defined additional construction and testing work necessary to attempt in bringing the incinerator into regulatory compliance.

The incinerator was included in the Part B Permit Application submitted to the DEP originally in April of 1983. The subsequent revisions to this application included updated information on the incinerator and proposed trial burn plan. The DEP issued P&W the most recent Notice of Deficiency (NOD) on this permit application in October, 1985. Included in this NOD were requests for additional incinerator information. As a response, P&W decided to close the incinerator and remove it from the Part B Permit Application process.

5.0 TEST BURN HISTORY

Three sets of test burns have been conducted on the unit. The first such burn was conducted March 30 and 31, 1982. These tests included approximately seven hours of burning, split between cyanide solutions and wax/solvent mixture. These test burns indicated excessive particulate and combustion problems.

To attempt in correcting the problems noted during this initial test burn, new injection nozzles were installed to increase atomization of the wastes, new burner controls were installed, and the exhaust stack was insulated to reduce the exterior fan noise.

A second test burn was conducted December 12-13, 1983 to determine the particulate emissions rate when burning these same two waste streams. This test consisted of approximately seven hours of burning, again split between these two waste streams. The test results indicated particulates again exceeding state requirements. As a result of this test, a second demister was installed.

The most recent and final test burn was conducted May 30, 1984 using only the wax/solvent mixture. This test further indicated excessive particulate emissions and poor destruction efficiencies, even after all the above modifications had been completed. P&W's consultant on the project, Recon Associates, analyzed the results of this test and all previous test data and proposed a series of much more extensive modifications which they felt could possibly bring the unit into regulatory compliance. After review of Recon's report, the decision was made to close the incinerator in accordance with all applicable regulations.

Four (4) different waste types had originally been proposed for treatment; blend oil, Zyglo solution, cyanides, and wax/solvents. Only the cyanides and wax/solvents are hazardous wastes. Each of the wastes were to be injected into the incinerator from a separate nozzle except the Zyglo and cyanides which were to be from a common nozzle. However as indicated above, only the cyanide and wax/solvent solutions have been burned, and this occurring only during the allowed test burns. Analytical data on the cyanide and wax/solvent mixtures are presented in appendix B.

6.0 CLOSURE PROCEDURES AND SCHEDULE

Only the incinerator portion of the CWTB will be undergoing closure activities. At closure, all hazardous wastes and hazardous waste residues (including ash) will be removed from the incinerator, waste heat boiler, and associated air pollution control equipment.

As has been previously mentioned, the incinerator has never been operational except for the allowed test burns, and will not become operational during the closure. Therefore there will not be any final treatment steps in the closure procedures described below. For the same reason, there will be no description of the operating conditions and operating procedures.

There are no storage tanks or storage structures at the CWTB dedicated to holding wastes for the incinerator, and therefore there will also be no need to discuss the maximum closure waste inventory or storage inventory.

The closure process concerns itself only with the decontamination of the incinerator, waste heat boiler, and associated air pollution control equipment, and the disposal of any hazardous wastes or hazardous waste residues. The following procedures will describe this work.

1. Remove any residue and ash (if present) from the incinerator, waste heat boiler, and pollution control equipment and test to determine if they are a hazardous waste. The sampling, and testing and determination methods are presented in sections 8.0 and 9.0 respectively.

2. Decontaminate the incinerator combustion chambers using steam pressure wash. All steam rinsate will be contained and collected in DOT 17 E drums, sampled and analyzed following the methods described in sections 8.0 and 9.0 to determine if this rinsate is a hazardous waste. This rinse step will be repeated until it is determined that the rinse waters are not a hazardous waste. *monitored*

3. The steam rinse, collection, and testing procedures described in step 2 above will then be carried out in the sequential flow process on the exhaust gas piping, waste heat boiler, venturi scrubber, packed tower scrubber, and demisters. The scrubber water solution tanks will also be rinsed, as will the concrete containment pit in which it sits. Rinsing of this equipment will also be repeated until the rinse water is determined to be non-hazardous.

Once steps 1 through 3 have been successfully completed, certification of closure will be signed by Pratt & Whitney and an independent registered professional engineer and submitted to the DEP. This form is presented in section 10.0. Once certification is obtained, Pratt & Whitney will also submit a revised Part A permit application with the incinerator removed.

All rinse waters will be collected, and placed in DOT approved 17E drums. These drums will be placed in the barrel storage building while awaiting this determination, so that any spill of this material will be contained should it be determined to be hazardous.

Rinse waters found not to be hazardous wastes by the test and determination methods contained in section 9.0 will be discharged into NPDES permitted wastewater treatment system.

Following completion of closure, the incinerator will be abandoned in place, with future removal. It is presently planned that portions of the air pollution control equipment inside the building will be removed, and the area occupied by this equipment used for additional CWTP activities.

All wastes found to be hazardous will be disposed of properly by an appropriate vendor

Table 1 presents the estimated timetable to complete all required closure activities described in this section. All dates are relative to public notice being completed and approval of the closure plan occurring at Month 0.

TABLE 1
TRACKABLE CLOSURE TIMETABLE

	<u>Estimated Time To</u> <u>Complete Steps</u>	<u>Total Time</u>
Step 1	2 Months	2 Months
Step 2	2 Months	4 Months
Step 3 and Certification	2 Months	6 Months

The actual time required to perform the closure activities may be completed ahead of this timetable. P&W would like to begin the closure immediately upon receiving the DEP's final approval.

7.0 CLOSURE COST ESTIMATE AND UPDATES

Closure costs are in Fall 1980 dollars, and are based upon 1) in-house labor @ \$200/Man Day, 2) transport and treatment of 55 gallon drums @ \$100/each, and 3) analytical costs of \$200/sample. All other costs are based upon "Means 1980 Cost Data."

Step 1 Removal and Disposal of Ash and Residue

A. Testing-10 samples	= 2,000
B. Labor	= 1,000
C. Disposal-10 drums	= <u>1,000</u>
	Sub-Total = \$4,000

Step 2 Rinsing Procedures- Main Unit

A. Testing-10 samples	= 2,000
B. Labor	= 3,000
C. Disposal-10 drums	= 1,000
D. Equipment-pumps, steam, etc	= <u>2,000</u>
	Sub-Total = \$8,000

Step 3 Rinsing Remaining Equipment

A. Testing-10 Samples	= 2,000
B. Labor	= 2,000
C. Certification	= <u>600</u>
Sub-Total = \$4,600	

Sum of Closure Costs	\$16,600
Contingency @ 20%	\$ <u>3,320</u>
Total Closure Cost	\$19,920

Round Value to \$20,000

As required by the RCRA regulations, presented in table 2 are the closure cost updates and the inflation factors used to bring the \$20,000 closure cost to May 1985 dollars.

TABLE 2

CLOSURE COST UPDATES

<u>YEAR</u>	<u>INFLATION FACTOR</u>	<u>UPDATED COST</u>
MAY 1981	-	\$20,000
May 1982	1.09	\$21,800
May 1983	1.06	\$23,108
May 1984	1.04	\$24,032
May 1985	1.04	\$24,994

8.0 SAMPLING PROCEDURES

Each drum of wastes, residue, or rinse water will be sampled and analyzed separately. Samples will be taken from the drums using a Coliwasa or glass "thief" sample tube. These sampling devices allow a composite sample to be taken covering all depths of the material. All glass sample tubes will be new, and will be discarded immediately after use. The Coliwasa, if used, will be cleaned after each use with detergent, distilled water rinse, hexane rinse, and distilled water rinse in that order.

Quality control of the samples will be maintained by:

1. Sampling with the appropriate instrument.

2. Use of the appropriate sample container and preservation techniques for the parameters of interest as described in EPA publication SW-846, Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods, 1982, and as time to time amended.
3. Only persons instructed in using a particular sampling device shall take the sample.

9.0 TESTING AND DETERMINATION PROCEDURES

All wastes, residues, and rinse waters will be analyzed for the parameters in Table 3 using the extraction and test methods as found in EPA publication SW-846 and presented in this table. This list includes all the parameters which could be expected to be present in the cyanides and wax/solvents, the only hazardous wastes to have been burned, in addition to the hazardous waste characteristics of corrosivity, ignitability, reactivity, and Extraction Procedure toxicity.

TABLE 3

ANALYTICAL METHODS AND HAZARDOUS WASTE LEVELS

<u>PARAMETER</u>	<u>EXTRACTION METHOD</u>	<u>ANALYTICAL METHOD</u>	<u>HAZARDOUS LEVELS</u>
Arsenic	6010	7060 or 7061	5.0
Barium	6010	7080 or 7081	100.0
Cadmium	6010	7090 or 7091	1.0
Chromium- Total	6010	7190 or 7191	5.0
Chromium	6010	7195 or 7196 or	5.0
-Hexavalent		7197 or 7198	5.0
Lead	6010	7420 or 7421	5.0
Mercury	6010	7470 or 7471	0.2
Selenium	6010	7740 or 7741	1.0
Silver	6010	7760 or 7761	5.0
Cyanide	N/A	9010	10.0
pH (standard units)	N/A	9040	≤2.0 or ≥12.5
Flash Point (° C)	N/A	1010 or 1020	<60° C
Solvents	Direct injection or 5020 or 5030	8010 and 8020	see text below

All the above levels are in mg/l unless noted.

The levels in this table, except cyanide, are taken directly from the Federal hazardous waste criteria as found in 40 CFR Section 261. There is no cyanide level in the federal regulations, but the DEP's internal policy level of 10.0 mg/l of cyanide will be used. The hazardous criteria for solvents concentration will be that found in 40 CFR 261 (a)(2)(iv) A or B, depending upon the solvent

in question. Wastes and rinsate found to have concentrations above these levels will be considered hazardous wastes, and disposed of accordingly.

Quality control of the analysis will be maintained by:

1. Using the appropriate analytical methods as described in SW-846.
2. Using only State of Connecticut Certified Laboratories for the analysis. The State of Connecticut has its own strict quality control procedures which laboratories must meet before certification is given.

10.0 CERTIFICATION OF CLOSURE

The following certification statement will be submitted to the DEP upon completion of closure:

"I, _____, for Pratt & Whitney Group, United
(Name)
Technologies Corporation, owner and operator of the hazardous waste
incinerator at 400 Main Street East Hartford, and
I, _____, P.E., employed
(Name)
by _____, certify by means of our
(Firm)
signatures, that the incinerator named above has been closed in
accordance with the method specified by the closure plan
dated _____, and attached hereto. Closure was completed
on _____.
(Date)

Pratt & Whitney Group

P.E.

Title

Firm

Date

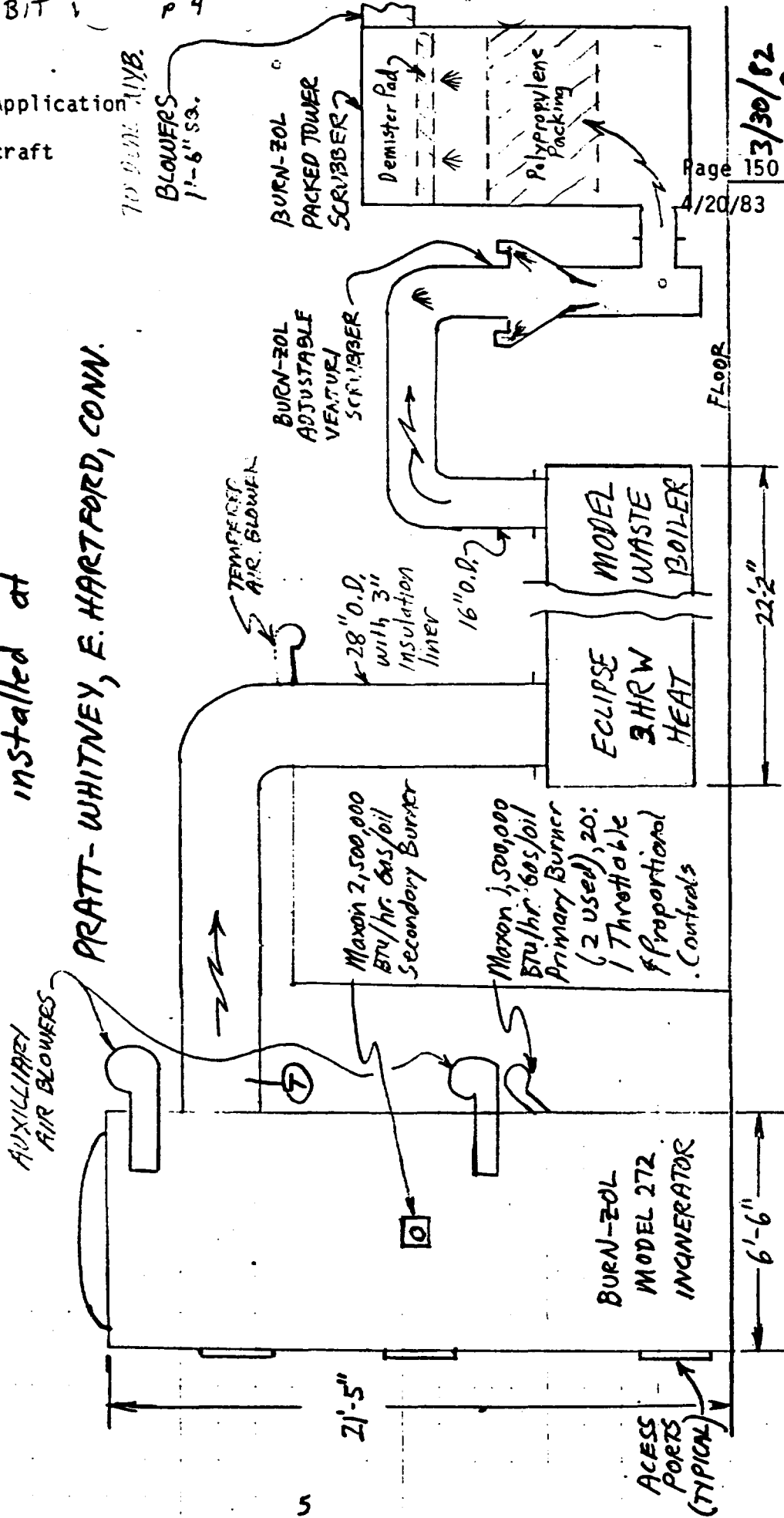
Date

APPENDIX A

RCRA Part B Permit Application
United Technologies
Pratt & Whitney Aircraft
CTD 990672081

HAZARDOUS WASTE INCINERATION SYSTEM

installed at
PRATT-WHITNEY, E. HARTFORD, CONN.



NOTE: A 1200 ACFM COMBUSTION AIR BLOWER FEEDS THE 3 INCINERATOR BURNERS.

NOTE: SEE FOLLOWING PAGE FOR MORE INFO
(T) TEMP. SENSOR FOR RECORDER

3/30/82
WBR

APPENDIX B

A. RICHARD LOMBARDI, P.E.
PRESIDENT
THOMAS D. LEE
DIRECTOR
FREDERICK O. A. ALMQUIST, P.E.
SANITARY ENGINEER
H. F. SACHS
BACTERIOLOGIST

THE NEWLANDS SANITARY LABORATORY
HENRY SOUTHER LABORATORIES, PROPRIETOR
SANITARY, CHEMICAL AND BACTERIOLOGICAL INVESTIGATIONS
24 TOBEY ROAD
BLOOMFIELD, CONNECTICUT 06002
TEL. (203) 242-6291

WATER SUPPLY AND PURIFICATION
SEWAGE & INDUSTRIAL WASTE DISPOSAL
DESIGN-SUPERVISION-VALUATION
CHEMICAL & BIOLOGICAL LABORATORIES
AIR POLLUTION STUDIES

I. LAND NEWELL, P.E.
CONSULTANT

RCRA Part B Permit Application
United Technologies
Pratt & Whitney Aircraft
CTD 990672081

Page 160 of 162
4/20/83

October 12, 1981

Minges Associates, Inc.
16 Avon Park North
Avon, Connecticut 06001

Attention: Mr. Lawton Averill

Gentlemen:

We have the following to report on the samples submitted to this laboratory on September 11, 1981.

Sample No.	710852-A	710852-B
Mark:	Wax - Solvent Mixture Reported 9-11-81	

	<u>Solvent Supernatant</u>	<u>Wax</u>
Nickel (Ni)	57.7 ppm	51.0 ppm
Iron (Fe)	--	654. ppm
Aluminum (Al)	--	166. ppm

RECEIVED
THE MINGES ASSOC. INC.

OCT 15 1981

TDL:D

Very truly yours,

THE NEWLANDS SANITARY LABORATORY

Thomas D. Lee
Thomas D. Lee
Laboratory Director

Minges Assoc., Inc.

- 1 -

Sept. 11, 1981

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4/20/83

Sample No. 710852
RCRA Part B Permit Application
Mark: United Technologies Sample of Wax-Solvent
Pratt & Whitney Aircraft
CTD 990672081 Mixture

Polychlorinated Biphenyls less than 10 ppb

Pesticides:

Endrin	less than	10	ppb
Lindane	less than	10	ppb
Methoxychlor	less than	10	ppb
Toxaphene	less than	10	ppb

Herbicides (Chlorophenoxy)s:

2,4-D	less than	10	ppb
2,4,5-TP Silvex	less than	10	ppb

Purgeable Organics:

1,1,2,2 Tetrachloroethylene	57.8	ppm
1,1,1 Trichloroethane	16.0	ppm
Aromatics (1R)	None	Detected
Water (Fisher Titration)	96%	

Note: The above tests were performed on the supernatant portion of the sample. The supernatant represents 25% of the total volume of the sample.

THE NEWLANDS SANITARY LABORATORY
BLOOMFIELD, CT. 06002

A division of The Minges Associates, Inc.
11 Avon Park North, East Hartford, CT 06001
Tel: 203-677-8309

THE MINGES ENVIRONMENTAL LABORATORY

Lawton S. Averill, Laboratory Director

Catherine M. Pintavalle, Chemist
Tara L. Vander Els, Chemist

REPORT ON LABORATORY EXAMINATIONS

To Client: Pratt & Whitney Aircraft
Maintenance Bldg. - Mail Stop 122-12
East Hartford, CT 06108

Date: November 15, 1983

SAMPLE DATA: Att: W. Chudzik

Collected By: Pratt & Whitney Aircraft

SAMPLE NO.	DESCRIPTION OF SAMPLE
112-55-64	Sample labeled "Cyanide" and received October 7, 1983

LABORATORY FINDINGS:

(milligrams per liter, mg/l, except as noted)

ANALYSIS FOR	SAMPLE NO.				
	112-55-64				
Cyanide Total	21,300				
Metals					
Aluminum	51				
Cadmium	6020				
Chromium, Total	4.3				
Copper	940				
Nickel	286				
Zinc	11				
Oil and Grease	48				

Lawton S. Averill
The Minges Environmental Laboratory

DESA Sept 3 Permit Application

Advanced Technologies

Pratt & Whitney Aircraft

TEL 353-72081

THE NEWLANDS SANITARY LABORATORY

Page

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New:

12/20/83

DIRECTOR
JEROME O. A. ALMQUIST, P.E.
SANITARY ENGINEER
H. F. SACHS
BACTERIOLOGIST
L. LAMB REWELL, P.E.
CONSULTANT

HENRY SOUTHER LABORATORIES, PROPRIETOR
SANITARY, CHEMICAL AND BACTERIOLOGICAL INVESTIGATIONS
24 TOBEY ROAD
BLOOMFIELD, CONNECTICUT 06002
TEL. (203) 342-6291

WATER SUPPLY AND PURIFICATION
SEWAGE & INDUSTRIAL WASTE DISPOSAL
DESIGN-SUPERVISION-VALUATION
CHEMICAL & BIOLOGICAL LABORATORIES
AIR POLLUTION STUDIES

December 19, 1983

Minges Associates, Inc.
16 Avon Park North
Avon, Conn. 06001

Attn: Mr. Lawton Averill

Gentlemen:

We have the following to report on the sample submitted to this laboratory on December 8, 1983.

Sample No.	351L3
Mark	Liquid sample 2% Cyanide 112-55-64
<u>URGENT ORGANICS:</u>	
Methylene Chloride	less than 100 ppb
1,1 Dichloroethylene	less than 100 ppb
1,1 Dichloroethane	less than 100 ppb
t-1,2 Dichloroethylene	less than 100 ppb
Chloroform	less than 100 ppb
1,2 Dichloroethane	less than 100 ppb
Bromodichloromethane	less than 100 ppb
1,1,1 Trichloroethane	less than 100 ppb
Carbon Tetrachloride	less than 100 ppb
1,1,2 Trichloroethylene	less than 100 ppb
Chlorodibromomethane	less than 100 ppb
Bromoform	less than 100 ppb
1,1,2,2 Tetrachloroethylene	less than 100 ppb

Very truly yours,

THE NEWLANDS SANITARY LABORATORY

Thomas D. Lee
Thomas D. Lee
Laboratory Director

TDL/cas

OUR REPORTS ARE RENDERED UPON THE CONDITION THAT THEY ARE NOT TO BE REPRODUCED WHOLLY OR IN PART FOR ADVERTISING PURPOSES OVER OUR SIGNATURE OR IN CONNECTION WITH OUR NAME WITHOUT SPECIAL PERMISSION IN WRITING.

SDA Part 8 Permit Application

United Technologies

Frost & Whitney

TEL 950672081

THE NEWLANDS SANITARY LABORATORY

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Rev: 12/20/83

A. BROWN
DIRECTOR
JENNICK D. A. ALBURY, P.E.
SANITARY ENGINEER
R. F. BOONE
BACTERIOLOGIST
L. LAMB REVELL, P.E.
CONSULTANT

HENRY BOUTHER LABORATORIES, PROPRIETOR
SANITARY, CHEMICAL AND BACTERIOLOGICAL INVESTIGATIONS
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WATER SUPPLY AND PURIFICATION
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December 19, 1983

Minges Associates, Inc.
16 Avon Park North
Avon, Conn. 06001

Attn: Mr. Lawton Averill

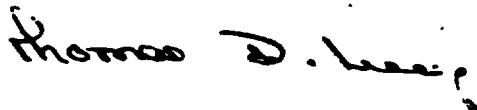
Gentlemen:

We have the following to report on the sample submitted to this laboratory on December 8, 1983.

Sample No.	351L3
Mark	Liquid sample 2% Cyanide 112-55-64
tal Organic Halides (TOX)	less than 10 ppb
Total Organic Carbon (TOC)	38.82 gms/Liter

Very truly yours,

THE NEWLANDS SANITARY LABORATORY



Thomas D. Lee
Laboratory Director

TDL/cas

SBA Part 2 Report Application

United Technologies

Whitney Aircraft

CTC 990672081

THE NEWLANDS SANITARY LABORATORY

HENRY SOUTHER LABORATORIES, PROPRIETOR

SANITARY, CHEMICAL AND BACTERIOLOGICAL INVESTIGATIONS

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WATER SUPPLY AND PURIFICATION
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SANITARY ENGINEERH. F. BACHS
BACTERIOLOGISTL. LAMM NEWELL, P.E.
CHEMIST

December 19, 1983

Minges Associates, Inc.
16 Avon Park North
Avon, Conn. 06001

Attn: Mr. Lawton Averill

Gentlemen:

We have the following to report on the sample submitted to this laboratory on October 7, 1983.

Sample No.	387J3
Mark	Solid/liquid sample 112-55-62
<u>Infrared</u>	
Solid	paraffin wax
Liquid	Water 85%
	Perchloroethylene 15%
<u>Total Organic Carbon</u>	
Solid	64.8%
Liquid	2.21%

Visual Examination

This material is approximately 20% liquid and 80% solid.

Very truly yours,

THE NEWLANDS SANITARY LABORATORY

*Thomas D. Lee*Thomas D. Lee
Laboratory Director

L/cas